

REMARKS35 U.S.C. § 112, sixth paragraph analysis

The Examiner undertook to define “the structural equivalent” of applicant’s means plus function expressions. The analysis was done by reference to drawings and disclosure in the specification. Applicants traverse the analysis as being unduly limitive as to potential scope of those means plus function expressions and not relevant. One of ordinary skill in art would interpret such expressions much more broadly than the Examiner did by the inappropriate selective reference to the drawings. One particular interpretation is wholly inaccurate as to its proper scope. The Examiner states:

“The structural equivalent of the ‘means for continuously mechanically separating the drained water with settled particulates from the bottom portion of the boiler structure’, is any structure that can mechanically separate drained water with settled particulates from the bottom of a boiler, because the specification broadly teaches a mechanical separator for draining water with settled particulates from the bottom of a boiler, and the only specific example of a mechanical separator is a centrifuge. Furthermore, the specification fails to teach a preferred centrifuge, however, the drawings implies that the preferred centrifuge is a hydrocyclone.”

The basis for limiting the expression to a centrifuge is not clear. The statement of a preferred embodiment is not limitive as to the claims. Further it is not appropriate or accurate to state that “the drawings implies[sic] that the preferred centrifuge is a hydrocyclone”. The shape of the diagrammatic representation for separator 58 is not limitive in any respect, it is a draftsman’s choice of a shape. The means plus function expressions are clear and unambiguous and do not require interpretation unless it is being done solely for search scope purposes in the context of a species election, which is not present in this application. Search parameter choices are the Examiner’s decision, unrelated to scope of the claimed invention. The Examiner’s conclusions in this section are not relevant, necessary or accurate and should be withdrawn as an improper part of the record of this application.

Claim Rejections - 35 USC § 112, second paragraph

Claims 1-12 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner asserted the following: “Regarding claim 1, the

recitation of "a supply conduit through which supply water can be added to the system" is vague and indefinite as to what portion of the system the supply water can be added to. Furthermore, the Examiner alleges that the two recitations of "the boiler structure" both lack antecedent basis and are vague and indefinite as to what structure defines a "boiler structure". In addition, Examiner alleges that the recitation of "the bottom portion" lacks antecedent basis. The Examiner also contends that the recitation of "and means for mechanically separating" is confusing, because when using the word "and" before "means" the "means" should be the last claimed "means", however, the "means for mechanically separating" is not the last claimed "means". Claim 1, as currently amended, eliminates "structure" and adds top and bottom portions which provides proper antecedent basis for each of the noted terms. The amendments have support in the specification.

The Examiner asserts the following: "Regarding claim 2, the recitation of "the separated particles" lacks antecedent basis. (i.e. the "separated particles" should be the --- separated particulates---). Claim 2 as currently amended provides proper antecedent basis for the noted term and is supported in the specification. The Examiner's careful review is appreciated

Regarding claims 3 and 10, the recitation in both of those claims of "the boiler structure" lack antecedent basis and is vague and indefinite as to what structure defines a "boiler structure". Claims 3 and 10 as currently amended by removing the term "structure" now have proper antecedent basis from Claim 1.

Regarding claims 4 and 6, the Examiner alleges that the recitation in both of those claims of "said boiler structure" lack antecedent basis and is vague and indefinite as to what structure defines a "boiler structure". Claims 4 and 6 as currently amended provide proper antecedent basis for the "boiler" and are supported in the specification.

Regarding claim 5, the issues raised by the Examiner have been addressed.

Regarding claim 9, the claim has been amended to remove the reference to United States Patent No. 6,063,267, and the language is replaced with the structural language "utilizes two coils wherein the fluxes produced by the two coils move in opposite directions through the liquid" which finds support in the newly added paragraph added as an incorporation by reference in this amendment. Therefore no new matter issue arises.

Claim Rejections -35 USC § 102

Claims 1-3 and 8-12 were rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent No. 4,406,794 (hereafter called "Brigante"). This rejection is traversed.

Brigante shows that its settling system is the oversized tube (90) under the boiler which simply collects the particulate by gravity and it must be then be purged as needed through valve (94). The Examiner asserts that the originally filed claim 1 language could be construed to include a "passive collection" system as shown in Brigante. This is felt to be inaccurate since mechanical separation suggests something non-passive. Notwithstanding that traverse, claim 1 is herein amended to "centrifugally separate" which clearly distinguishes Brigante's oversized pipe 90 system involving only gravity separation. Reconsideration and withdrawal of this rejection is requested.

Claim Rejections -35 USC § 103

The Examiner has rejected Claims 4-6 under 35 U.S.C. 103(a) as being unpatentable over Brigante in view of Cannell. This rejection is traversed on the basis that Claim 1 as currently amended distinguishes over Brigante's passive separation system as discussed above utilizing a centrifugal separating system.

Claim 7 was rejected under 35 U.S.C. 103(a) as being unpatentable over Brigante in view of Cannell as applied to claim 6 above, and further in view of Agrest.

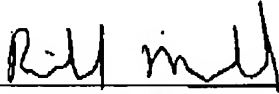
This rejection is traversed on the basis that Claim 1 as currently amended distinguishes over Brigante's passive separation system as discussed above utilizing a centrifugally separating system. Additionally as acknowledged by the Examiner, neither Brigante nor Cannell disclose that the watertube boiler has an upper drum and lower drum. The Agrest, a watertube boiler has no particulate discharge system and relates only in a very general sense to the technology of the invention. In view of the distinctions of the independent claim 1, the Examiner is urged to reconsider and allow the claim.

In view of the amendments and arguments made, the Examiner is respectfully requested to withdraw all pending rejections and to allow the claims as amended. Such action is requested.

If the Examiner believes that a telephone conference with Applicants' attorneys would be advantageous to the disposition of this case, the Examiner is invited to telephone the undersigned.

If any additional charges are incurred with respect to this Amendment, they may be charged to Deposit Account No. 503342 maintained by Applicants' attorneys.

Respectfully submitted,

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